

DEFENCE AND THE SCOTTISH ENVIRONMENT

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Introduction

The crumbling of the great edifice of Soviet military power in the past three years has been one of the most profound political changes in Europe's history. The West has watched with amazement – and not a little regret in some circles – the sweeping away of the old certainties of oppressive centralised states and entrenched military superiority.

The effect on state and society in the East European countries has been immediate. Slowly at first, western states have also begun to adjust to the new reality – that the cornerstone of their defence policies for the last 40 years, the assumption of impending aggression by an imperialistic Soviet Union, has collapsed. Much has been written about the effects of these changes on NATO's force structure, doctrine and strategy⁽¹⁾. But the longer term – and arguably, more profound – impact on the fundamental relationship between state and society in the countries of western Europe and North America has had little airing.

Societies which do not feel threatened – internally or externally – are unlikely to support high state spending on military forces. The decline of the Soviet threat has opened up the possibility that the level of resources allocated to the military, and the policy and posture of the armed forces, may be more openly subjected to non-military determinants or influences. This has two elements: the erosion of the military's traditional exclusivity of decision-making, which has in the past severely restricted the extent to which the public – and Parliament – could scrutinise or participate in decision-making about defence; and secondly, the decreasing relative importance of national defence in the face of growing public awareness of and concern about environmental issues.

In this regard, the military is rather vulnerable to public criticism. The design of modern weaponry places a premium on maximising destructiveness, while the trend in the doctrine of warfare is towards greater mobility of forces, requiring wider expanses of training land. Greater physical damage is caused by live firing as the lethality of weapons increases; technological advances have led to more military training taking place at night; in the air, the intensity and frequency of noise disturbance from low flying aircraft has become a major source of friction between the public and the military; and at sea, fishermen

face the dangers of picking up spent weaponry in their nets and of submarines snagging their equipment, with potentially fatal results⁽²⁾.

Military operations also involve the handling of a wide variety of toxic materials, such as nuclear fuel for submarines, fissile material for nuclear warheads, a variety of fuels, conventional explosives, PCBs in electrical equipment, and solvents. Defence installations are therefore a source of a considerable range of pollutants.

It has also been argued that there are positive aspects to the military's impact on the environment: in particular, that the exclusion of the public from certain environmentally-sensitive defence lands has allowed particular rare species of plants, insects, birds and animals to thrive;⁽³⁾ but in the terms of this paper, which addresses the role of environmental concern in shaping the future of social relations between civil society and the military, these specific biological impacts are likely to be of lesser significance than the questions of access, public safety and lack of accountability which tend to dominate the public debate about military-environmental issues. This is not to deny the value of the concept of restricted areas or sanctuaries for protection of particular habitats or species; merely to illustrate that civil-military relations in the environmental field are not simply about the merits and demerits of particular biological impacts, but can be seen as a facet of a much wider debate about the role of the military in society.

With this background of a declining threat, increasing intensity of military impacts on the environment, and growing public awareness of 'quality of life' issues, military-environmental impacts may become an important focus of the changing relationship between the military and civil society. In Scotland, where the belief that the country suffers a uniquely heavy burden of militarisation is widespread,⁽⁴⁾ the impact of the military on the social and physical environment is likely to play a central role in civil-military relations as a whole.

The magnitude of the shifts in civil-military relations is potentially enormous. It would have seemed inconceivable twenty or even ten years ago that Britain might find itself in a position where substantial elements of its defence posture were dictated not by the best way to mount a credible defence against a commonly-accepted military threat, but by what politicians considered the domestic population could bear in terms of military environmental impact. However, that prospect is now becoming reality in a number of areas of military activity. The government has committed itself not to increase the amount of low flying training in Britain, in deference to public opposition; large-scale field exercises have been abandoned in Germany to placate angry farmers and rural citizens; intended Ministry of Defence land acquisitions in Scotland, designed to meet established training requirements, have been abandoned in the face of public opposition⁽⁵⁾.

The Military Nation

Britain is unique among the European members of NATO in having all-volunteer armed forces. Conscription was abandoned in 1957, as part of a plan to move Britain's military posture firmly into the nuclear-technological era. Increased technical sophistication, the need for access to training grounds, and a decline in the use of the military for internal policing or civil emergency roles, have tended to reduce the presence of military personnel in urban areas, where the bulk of Britain's population lives. As a result, the military's direct impact on civilian society – with the notable exception of Northern Ireland – is relatively small. In West Germany, armed troops and columns of tanks are seen on the streets of many towns on a regular basis. Direct contact of that sort between military training and large numbers of civilians is unheard of in mainland Britain, and would likely be regarded as alien and unacceptable.

As noted above, there is a widely-held view – almost a commonplace – that Scots bear a particularly heavy military burden. But how militarised is Scotland? Can it be said that there are particularly high concentrations of troops, installations, or military spending north of the border? Or alternatively, is the perception of militarisation based more on wider social values such as alienation of Scots from political decision-making in Whitehall, lack of democratic accountability, and contrasts between civil economic decline and highly visible heavy investment in defence projects?

In the 1970s, John Erickson described Scotland's relationship with the military as being at "a curious crossroads" between the nostalgia of pibroch and tartan, and the abstraction of the "strategic environment" and its associated high technology⁽⁶⁾. Nearly a decade and a half on, little has changed – an indication, perhaps, that what appeared then as a crossroads was simply the enduring dichotomy between romantic myth and poorly understood reality. Even today, national and regional identification with particular regiments of the British Army – largely a product of the Crown's "pacification" of the Highlands after the Jacobite rebellions – is a central element in the Army's recruitment strategy in Scotland, and also provides a basis for local civil-military linkages through Territorial Army (TA) infantry units.

The steadfastness of this image of Scotland's military role as, above all, a reliable pool of unskilled labour for the British infantry is given some credence by the recruitment figures. Between 1979 and 1987, Scotland contributed between 10 and 12% of all new non-officer recruits to the armed services. This is only marginally greater than Scotland's share of the UK population, but there were notable differences in recruitment to each of the four services, with the Army taking between 11.3 and 14.4% of its recruits from Scotland, the RAF around 9-10%, the Navy 8-9%, and the Marines as little as 6-7%⁽⁷⁾. What these figures also show is that the demographic and social factors which are causing a decline in recruitment across the whole of western Europe are affecting Scotland in equal measure. More than 5,000 Scots joined the armed

services in 1979-80, but by 1986-87 the annual recruitment figure was down to just over 3,000⁽⁸⁾.

The notion that Scots are somehow more favourably disposed to service in the military is also borne out by the figures for membership of the Territorial Army and other part-time or reserve forces. In 1987, reserve units stationed in Scotland accounted for some 12.7% of all British military reserve personnel. The Scottish proportion was particularly high among the more specialised units such as the Royal Auxiliary Air Force (a large proportion of whose total UK staff are Scottish-based), but even among the basic TA units and the newly-formed Home Service Force, Scotland's share was 12.4% and 17.4% respectively, both significantly above expected levels on the basis of share of population⁽⁹⁾.

In terms of the "export" of military personnel, then, Scotland would appear to have a rather higher degree of militarisation than the UK as a whole. But what of the "import" of personnel – the numbers of military personnel stationed in Scotland? The latest available figures show that 20,000 British military personnel were stationed in Scotland as at 1st July 1989 – 9% of the UK total. The equivalent figure in 1980 was 7.6%. This indicates that Scotland hosts slightly fewer military personnel than its share of the UK population, though the proportion has evidently been rising in the 1980s⁽¹⁰⁾.

Interestingly, despite the perpetuation of the romantic image of the fearsome kilted Highlander charging into battle to the skirl of the pipes – that "heady ingredient in the Scottish pantheon of myths"⁽¹¹⁾ – the Army is a relatively insignificant element of the military presence in Scotland. In recent years there have been around 3,000 Army personnel based in Scotland, compared to 8,000 each in the Navy and RAF⁽¹²⁾. Those Army units that are based north of the border are mostly locally-recruited infantry, so the classic high environmental impact land forces activities which cause so much public protest in West Germany – such as tank manoeuvres and artillery firing – are largely absent from the Scottish scene⁽¹³⁾.

The figures for civilian employees of the Ministry of Defence (MoD) are somewhat more complex, since the privatisation of the Royal Ordnance Factories (ROF) – with their Scottish facility at Bishopton, near Glasgow Airport – in 1985 and the contractorisation of the Rosyth naval dockyard in 1987 have removed their personnel from the statistics. In 1979, there were just under 22,000 civilian employees of the MoD in Scotland (including 2,300 at ROF Bishopton, over 4,000 at the Clyde Submarine Base, and around 8,000 at Rosyth) – some 9.5% of the UK total. However Scotland's proportion had declined to 8.5% by 1988, reflecting the heavy concentration on now-privatised facilities north of the border⁽¹⁴⁾. MoD civilian manpower has of course declined rapidly over the whole of the UK in this period, both through privatisation measures and sweeping efficiency drives which have driven down levels of employment UK-wide. Reflecting these policies, there are now less

than 12,000 MoD civilian employees in Scotland – a decline of around 45% in ten years. Many of these jobs have not, of course, disappeared, but merely transferred to private companies; but the decline in numbers employed at ROF Bishopton and the Rosyth naval dockyard, which started before privatisation, has continued since. In summary, MoD civil employment in Scotland is no greater, and perhaps a little less, than Scotland's share of the UK population.

One other important element of the military presence in Scotland is the number of US military personnel. There are approximately 3,400 US military personnel stationed in Scotland – some 11% of the total number of United States military personnel in the UK as a whole – rather higher than the Scottish share of the UK population⁽¹⁵⁾. The overall figure is, however, likely to be rather higher, after taking into account US civilian contractors' employees and civilian employees of the US government, such as the National Security Agency cryptologists and radio specialists employed at Edzell.

There seems to be little evidence, then, of a military invasion of Scotland as far as numbers of personnel are concerned. What then of the impact of military installations on their local economies? Military bases provide a contribution to the local economy through local purchases of goods and services and through payments made to local authorities in lieu of rates. These economic linkages are an important part of the military-civil relationship, for in many cases they form much of the basis for local public support for the military presence. There is undoubtedly a trade-off to be made between adverse environmental impact and local economic gain – critics of aircraft noise in, for example, Moray or Fife tend to argue for mitigation measures rather than removal of the source.

The evidence suggests that, though important on a local scale, the amounts of money involved are, generally speaking, insignificant. The total value of all local purchases of goods and services by military establishments in Scotland in 1985-86 was only £8.8 million, with an additional £1.5 million going to local contractors for services to the MoD. Extension of privatisation of defence services since then is likely to have increased the latter figure, but the overall amounts remain low⁽¹⁶⁾.

Wage bills are in a rather higher bracket. In the mid-1980s, service personnel based in Scotland were paid some £200 million a year in wages and salaries. The 12,000 MoD civil service personnel can be assumed to have earned around another £120 million a year in that period. Past studies of the multiplier effect of military bases would suggest that these wage and salary payments resulted in a contribution to the Scottish economy of some £400-£500 million per annum⁽¹⁷⁾. Crown facilities are not required to pay the business rate as such, but have in the past made payments in lieu of rates to the local authority. The requirement for service personnel to pay the poll tax – unless they are Americans – has engendered considerable resentment and

political controversy, but is a further source of economic gain to the local community. Again, however, these are relatively insignificant amounts when viewed on a regional or national scale. For example, Highland Region, which contains about a quarter of all MoD land in Scotland, including some relatively high rateable value installations such as fuel depots, was receiving less than 2% of its rating income from military establishments in the early 1980s⁽¹⁸⁾.

In Central Scotland, a more relevant measure of militarisation of the economy – and therefore a guide to likely levels of support for defence spending – is the degree to which industry is dependent on the defence budget. Thanks to some notable work by MoD statisticians in the mid-1980s, statistics on regional shares of defence expenditure, and resultant employment, are now available. They show that the estimated number of people employed directly in Scotland by prime equipment contractors to the MoD was 16,000 in 1987-88 – around 9% of such employment for the UK as a whole (approximately the same as the Scottish share of the UK population), or 4% of total manufacturing employment in Scotland (the same as the national average share). Defence industry prime contractor employment in Scotland has dropped by 11% – 2,000 jobs – in two years, but this reflects the general downward trend in UK manufacturing employment as a whole.

If Scotland seems to do relatively well in terms of jobs created by UK defence equipment spending, its share of procurement expenditure is not so impressive – between 6 and 7.5% of the UK total in recent years. Reflecting this, the MoD's figures show that Scotland only receives around £110 per head in MoD equipment spending, compared to £220 per head in south west England (dominated by British Aerospace at Bristol and Westland Helicopters), £170 in the south east, and £160 in the north of England⁽¹⁹⁾.

The future of the defence industry now looks extremely bleak. From a 1981-82 peak of around 740,000, the number of jobs sustained by military spending in the UK as a whole shrank by more than 23% to 565,000 in 1986-87. Scotland's direct defence equipment manufacturing employment grew from an estimated 14,600 in 1976 to 18,000 in 1985-86, but had slipped back to 16,000 by 1987-88⁽²⁰⁾.

Given the evaporation of the rationale for much defence equipment, no programme is now sacred, and Scotland's defence employees may be particularly vulnerable. Ferranti's radar division, taken over by GEC in early 1990, employs some 6,000 people in Scotland – the largest single manufacturing employer in the country. But despite diversification into civil products, GEC-Ferranti remains heavily dependent on military work. The future of the company's Scottish operations are tied inextricably with the European Fighter Aircraft project. A German decision to pull out of the project, now increasingly likely as German unification becomes a reality, would spell redundancy for many skilled workers in the Edinburgh area. The degree of dependence on military jobs is illustrated by the bizarre spectacle of

several Central Scotland Labour MPs, not noted for their predisposition to high military spending, lobbying hard for the government to maintain its commitment to this hugely expensive and militarily questionable aircraft⁽²¹⁾.

The other major military producer in Scotland, Yarrow's shipyard in Clydebank, is also highly vulnerable to the current trends in defence spending. Yarrow's have been dependent for the last few years on increasingly rare frigate orders from the MoD. In the present climate, the high unit cost projects such as Type 23 frigates (around £120 million each) may well be an easy option for cuts, and there is no indication that even an incoming Labour government would rejuvenate spending on such 'gold-plated' projects.

The defence industry, then, is declining in importance in terms of its rank in the Scottish economy, and although significant on a local scale in places such as Moray and Dumbartonshire, the contribution of military bases to the Scottish economy remains small. Privatisation of defence services and reductions in MoD civilian employment have further reduced these contributions. The result is likely to be less political commitment to military production for employment protection reasons. In conjunction with the widespread public appreciation of a declining threat, this will make many military-related projects more susceptible to competing social and economic priorities and to environmental scrutiny.

The Land Question

One final method of measuring the degree of militarisation of Scotland – and a central feature of the debate on the environmental impact of the military – is land use.

The ownership and use of land has been one of the most contentious and enduring social issues in Scottish history, and is firmly embedded in the national psyche. Hackneyed though they may be, historical references to the post-Jacobite pacification of the Highlands, the Clearances, and more recent events such as the stand against the landlords by the Seven Men of Knoydart are nevertheless a real and potent element of Scottish popular attitudes to land. John McGrath has argued that the history of land ownership in Scotland is "significantly different from that of neighbouring nations"; Scotland "did not have its own bourgeois revolution – it inherited the fruits of the English one by the Act of Union. But this Act and the subsequent growth of Scottish capital was carefully 'managed' by the Scottish aristocracy. The aristocrats had accumulated their own wealth not because they were skilful merchants, but because they owned vast acres of land"⁽²²⁾.

As agents of the Crown, the military may be seen in popular culture as replicating many of the attributes of the lairds – beyond democratic accountability, symbolising allegiance to alien masters, and using large areas of land in an unproductive way.

The focus of the land debate has shifted somewhat in the 1980s from landlordism and the economic use of Scotland's vast upland areas, to questions of 'conservation versus development', and to recreational use of upland areas – witness the heated arguments over geese and the whisky industry in Islay, forestry and peat extraction on the moors of Caithness, and the Lurcher's Gully ski development in the Cairngorms.

But the core questions – who owns and controls the land; public access; productive use; conservation of natural resources – are all pertinent in the case of military use of the land. MoD ownership exemplifies lack of local control of land resources; the nature of military operations frequently necessitates debarring public access; military training is non-productive; and conservation aims may be at odds with military requirements.

Much of the current pattern of defence land use in Britain is a product of the Second World War. Almost five million hectares of land – about 20% of the UK – were in military use between 1939 and 1945. Only two years after the end of the war, the UK total was cut more than ten-fold, to some 400,000 hectares, and remained at about that level until the report of the Defence Lands Committee, under Lord Nugent, in 1973. Nugent's task was to rationalise the defence estate, cut out waste and duplication, and release as much land as possible for more productive use. The report only recommended release of some 13,000 hectares, but successive governments in the 1970s and 1980s have continued the commitment to reduce the overall holdings of land by the MoD, and the total defence estate was down to less than 300,000 hectares by the late 1970s and to a low of just under 240,000 hectares in 1987⁽²³⁾.

Since then, however, military land holdings have started to expand again. Two factors have caused this reversal of the post-war contraction. First, the Conservative government since 1979 has expanded the Territorial and Auxiliary forces from 77,000 to over 90,000. New units have been created, including many with a new emphasis on Home Defence tasks. These new units require training areas within easy reach of their bases. Secondly, the increased range, firepower and destructiveness of modern weaponry necessitates larger safety zones around weapons ranges. Consequently, the government's plans for TA expansion and re-equipment of the Army led to a re-appraisal of defence land requirements, resulting in the Barron Report, an internal MoD document, which concluded that an additional 20,000 hectares of training land were required for the Army to meet these needs. The Ministry's training land acquisition programme in 1986-87 alone amounted to just under 6,000 hectares⁽²⁴⁾.

The Barron Report has particular relevance for Scotland. The existence of a requirement for an additional 20,000 hectares of training land only emerged when, in late 1982, local people became aware that Army personnel were inspecting the Knoydart estate (some 21,000 hectares) in the West

Highlands, with a view to purchase. After a major public outcry, the MoD withdrew its interest, but one year later made it known that they were still looking for suitable sites⁽²⁵⁾. One very large training area is far from ideal, however, in terms of training requirements. Had the MoD taken over Knoydart, this would have been a prized asset for major amphibious landing exercises, multi-function training and a variety of weapons range facilities, but its location would have meant massive expenditure on transporting troops from and to their bases – many of them as far away as Devon and Cornwall – and would have effectively ruled out its use by the expanding TA, whose training is mostly carried out over limited periods at weekends and who therefore require training areas close to their bases.

Since the withdrawal from Knoydart, the MoD has preferred to pursue smaller individual land acquisitions, principally on the fringes of existing training areas. Not only are these more suited to training requirements, but they are perhaps less prone to adverse publicity and opposition on a national scale, which could lead to blocking of purchases or unacceptable restriction of training activities.

In Scotland, MoD owned or leased land holdings have remained fairly constant over the past ten years. The decline from a total of 22,100 hectares in 1980 to 20,700 hectares in 1989 was accounted for almost entirely by the transfer to private ownership in 1985 of the Royal Ordnance Factory at Bishopston in Renfrewshire⁽²⁶⁾.

However, the situation looks rather different when military training rights are taken into account. The total MoD land holdings in Scotland, including land over which rights are held, increased from 24,800 hectares in 1980, to 91,200 hectares in 1989 – an expansion of 268%. This massive increase was accounted for mainly by the RAF's acquisition of rights to carry out 'expedition training' over 5,700 hectares of the Auchallater Estate, near Braemar, in 1980, and the acquisition of Army training rights over 50,000 hectares of Forestry Commission land in Galloway and 11,679 hectares of British Aluminium Company land in the hinterland of Kinlochleven, in 1987. Rights to a further 500 hectares of land in Scotland were acquired in 1988, and purchase of an additional 1,500 hectares at the Garelochhead Army training camp has not yet entered the statistics⁽²⁷⁾.

The increases in training rights offer the Army an efficient solution to what might otherwise present serious logistical and political problems. Use of land without the burdens of ownership frees the Ministry from costly and administratively complex management tasks, while negotiation of rights can be undertaken with the landowner without reference to the local authority or to any process of public review. The acquisition of rights to train in the Galloway Forest only became known to the public and local authorities in the area two years after the event, following the appearance of land holdings statistics in the Defence White Paper⁽²⁸⁾.

But is Scotland particularly heavily militarised in terms of MoD access to land? Analysis of the statistics, interestingly, suggests not:

Table 1

MoD land holdings in the UK as a proportion of land area and population

	MoD land holdings (ha) 1989		As % of total land area		Per 1,000 population*	
	(freehold/ lease only)	(incl. rights)	(freehold/ lease only)	(incl. rights)	(freehold/ lease only)	(incl. rights)
Scotland	20,700	91,200	0.26	1.16	4	18
England	195,700	223,800	1.50	1.72	4	5
Wales	21,100	23,500	1.02	1.13	8	8
N. Ireland	3,800	3,900	0.27	0.28	3	3
UK	241,300	342,400	0.99	1.40	4	6

* Based on population figures for 1981

The figures show that Scotland and Northern Ireland have a particularly low level of MoD owned and leased land as a proportion of total land area, and even when the 70,500 hectares of training rights in Scotland are included, MoD land is a smaller proportion of total land area than in the UK as a whole. Only in terms of MoD land per 1000 population does Scotland appear to have a greater burden than the rest of the country, and then only when rights to land are included.

The available statistics are not, however, the full picture on MoD land use. Military exercises, large and small, take place in many areas outside MoD land. These may be areas where training licences have been negotiated with landowners, but for periods considered too short for inclusion in the statistics (typically, a year), or they may be areas where specific one-off agreements are reached to permit a particular exercise to be carried out. There is no comprehensive published information on the extent of these activities, but research carried out at Aberdeen University in 1976 identified 61 locations of private land in Scotland north of the Central Belt which had been used by the Army and Marines for exercises between January 1975 and July 1976⁽²⁹⁾. Amongst the more frequent activities are Mountain and Arctic Warfare Training by the Royal Marines in the Cuillins and the Cairngorms, amphibious training in the Glenelg area, and Army special forces and infantry training in Glen Garry.

Without evidence on the extent of these activities, and their distribution throughout the UK, it is not possible to judge whether Scotland receives 'more than its fair share'. One must therefore make do with the official statistics. On that basis, the conclusion must be that, in purely statistical terms, Scotland is no more militarised than other parts of the UK, and that the level of perception of militarisation cannot be explained simply by the military's access to

resources or scale of activities in Scotland. Put another way, for a type of land use which covers only just over 1% of Scotland's land area, the defence estate is a focus of disproportionate political debate.

It would be over-stating the case to argue that Scotland had a monopoly on public concern about military land use. Public inquiries over MoD proposals in various parts of England suggest that the land issue has a nationwide currency, and opposition to military activities in the English and Welsh National Parks has been particularly vociferous⁽³⁰⁾. But the plain facts of the scale of military access to land in Scotland are an insufficient explanation of the level of public opposition to military land expansion.

Some explanation of the generally negative reaction to defence land acquisition may be found by looking at the local, rather than national scale. The English experience is illustrative here. Many of the particularly contentious attempted land acquisitions by the Army in the 1980s took place close to urban areas, on land regarded as having high recreational value (Holcombe Moor, Lancashire, 1986); or in green belt areas (Luddesdown, Kent, 1984), where opposition was widespread, well-informed and had local authority backing. The fact that many of these Army training areas contribute nothing to the local economy means that the MoD cannot count on a section of local opinion which might have an economic stake in their proposals⁽³¹⁾.

Scotland has seen fewer cases of Army land acquisitions leading to public inquiries – the last one concerned the development of the Castlelaw firing range on the south side of the Pentland Hills in 1979. More recently, however, an Army interest in further expansion of its land on the Pentlands was abandoned very early in the process after it became clear that opposition from both the local authority and recreational groups in the area would be vigorous⁽³²⁾.

The Pentlands case shows that in areas where recreational demands are high, particularly in close proximity to centres of population, public feelings about military land use run high. But another facet of the difficulties facing the MoD in attempting to expand their training land was demonstrated by the response to their consolidation of a training rights agreement with the Forestry Commission over some 50,000 hectares of Galloway in the late 1980s. The new training licence only came to light some 18 months after it was signed and local politicians, including at least one Conservative, were particularly angered by the MoD's failure to consult the local authority or community interests⁽³³⁾.

The Army is therefore caught in a cleft stick – it can seek outright acquisition, following established procedures of consultation and public review; or it can seek less public means of increasing its training facilities, for example through informal agreements with landowners. In the former case, it must be prepared to explain fully its plans in public, answer criticisms, and risk either rejection of its proposals or amendments which impact on the

training value of the land. In the latter case, the training facilities are likely to be limited in scope and hedged with restrictions imposed by the owner; and the Army runs the risk of adverse publicity at a later date if major areas are acquired without public consultation.

Low Flying

One final aspect of military activity in Scotland which engenders considerable public concern is low flying training by military jet aircraft. The effects of sudden aircraft noise, particularly in quiet rural areas, can be frightening, and there is a growing catalogue of cases in which people and animals have suffered accidents, stress and ill health as a result of being overflown. The chairman of a NATO study of low flying aircraft noise said in 1987 that "there are few aspects of peacetime military activity which provoke more adverse public reaction"⁽³⁴⁾.

The particularly negative reaction to low flying has several facets besides the obvious one of noise disturbance. First, it takes place over most of the country – including the fringes of urban areas – well beyond MoD land and often far away from any military installations; second, it is not subjected to any legislation, local authority jurisdiction or public consultation processes; third, the danger of crashes is seen as a major public safety hazard; and finally, low flying is linked to an offense-oriented military doctrine which looks increasingly inappropriate in an era of vanishing threats.

Perversely, however, the intensity of low flying training can be seen as a measure of the effectiveness of a country's will to fight – the credibility of its deterrence. A state which is prepared to run the domestic political risk of fielding continual criticism from its population over the disturbance from low flying, and which trains its pilots to a peak of combat readiness on a daily basis in peacetime, is projecting a strong image of a nation fully prepared to go to war.

As with other aspects of the military presence in Scotland, it is commonly held that proportionately more low flying takes place north of the border than in England or Wales. When, in early 1990, the National Audit Office (NAO) produced a report stating that the opposite was true – that only 10% of low flying took place in Scotland, which makes up about one third of the area available for low flying in Britain – there was an immediate outcry from the Scottish press and MPs, particularly as the NAO seemed to be suggesting that shifting more low flying to Scotland could alleviate the disturbance in the more frequently-overflown and densely-populated parts of England and Wales⁽³⁵⁾.

In some respects, the NAO's contention that Scotland does not shoulder its fair share of the burden seems reasonable. Northamptonshire, for example, forms such a busy channel for low flying military aircraft en route from bases in East Anglia to the low flying areas of Wales, Devon and Cornwall, that it has

been dubbed 'The Ho Chi Minh Trail' by pilots⁽³⁶⁾. The density of the low flying air traffic in other areas such as Lincolnshire, South Yorkshire, East Anglia, North Wales and Cumbria is so great that pilots are instructed to follow one-way routes along valleys to reduce the risk of mid-air collisions; but only two such routes exist in the whole of Scotland⁽³⁷⁾.

However, subsequent evidence to the House of Commons Defence Committee's inquiry into low flying showed that the NAO's conclusion was based on incomplete data. Their figures took no account of the different types of low flying conducted in different parts of the country. A very high proportion of low flying in south-east and south-west England, and in Shropshire, is by helicopters, which fly slower and spend less time on each low-level sortie. In Yorkshire and Lincolnshire, a high proportion is by smaller and slower aircraft such as the Jet Provost trainer. However in Scotland, much of the low flying is carried out by the faster, higher performance aircraft such as the F-111, Tornado and Jaguar. These types cover much more ground on each sortie, and are significantly noisier than smaller training aircraft. The Scottish perception of greater burden may therefore not be as far from the truth as the NAO report suggested⁽³⁸⁾.

Scotland's less restricted airspace and sparser population has also attracted two particularly disturbing forms of low flying – ultra-low training, down to 100 feet above ground level, and night low flying. Britain is the only country in Europe to permit flying at less than 250 feet over its own citizens, and the vast majority of it is conducted in two areas of Scotland – the north-west Highlands, and most of southern and south-west Scotland (a small amount is also carried out in mid-Wales). The same area in the north-west Highlands is also the only area in western Europe where aircraft are allowed to fly on instruments – for example in bad weather, and/or at night – as low as 250 feet off the ground. The 100 foot area in the Borders was more than doubled in size in 1988 without any process of prior consultation, while the frequency of low flying in the Borders in general more than doubled between 1980 and 1986⁽³⁹⁾.

That the effects of low flying may be seen as the main military-environmental problem in Scotland is therefore not surprising. With the collapse of the Warsaw Pact, the MoD is now faced with demands not merely for mitigation measures, but for wholesale revision of its strategy and major reductions in the amount of low-level training.

Planning Procedure

Faced with opposition to its land acquisitions, the MoD has been under growing pressure in recent years to pay more attention to its environmental policies, and in particular to demonstrate its *bona fides* in respect of development planning procedures. As a government department, the MoD is not subject to the provisions of the Town and Country Planning Act 1984,

which is the basis for development planning in Britain. This means that the MoD could, constitutionally, go ahead with any development adjudged to be necessary in the interests of national security.

In practice, however, the MoD takes a much more conciliatory line. Under the provisions of Scottish Development Department (SDD) Circular 21/84, all government departments – including the MoD – “will consult planning authorities before proceeding with development (including material changes of use) which would otherwise require planning permission”⁽⁴⁰⁾. Many of the MoD's developments could also be implemented without consultation with the local authority under the provisions of the General Development Order (GDO), but it is notable that SDD Circular 21/84 states that government departments will only use the GDO for developments similar to those permitted for local authorities and private developers under the Order. In other words, the Crown claims no special privileges or rights in these cases. Moreover, even in cases where government departments do use the GDO to avoid the normal planning consultation procedures, “departments have agreed” to notify local planning authorities in cases where developments are “likely to be of special concern to the authority or the public”⁽⁴¹⁾.

Under the Circular 21/84 procedure, the MoD is required to submit a 'Notice of Proposed Development' to the relevant local authority for any new project. The planning authority then treats the notification as if it were a conventional planning application, and has two months in which to make comments to the MoD, having publicised the proposal. In the event of the local authority objecting to the proposal, the Ministry will refer it to SDD. thereafter, any specific local authority objections may be dealt with by mitigation measures agreed in informal meetings between the MoD and the local authority.

If agreement cannot be reached by this method, the proposal can be referred by the Secretary of State for Scotland to a non-statutory local planning inquiry. This is by nature a limited affair, restricted to considering only those aspects of the development which are within the competence and jurisdiction of the local planning authority. The underlying need for the project, and consideration of strategic alternatives – for example, in the case of Army training land, an evaluation of the Army's national training land requirements, as outlined by the Barron Report – are beyond the scope of local planning inquiries. Only in cases of major national significance will a full Planning Inquiry Commission, which can look at these wider aspects, be instituted.

In the event of a local planning inquiry taking place, the inquiry reporter may make recommendations, or may leave consideration of the inquiry's findings to the Secretary of State. Either way, the Secretary of State has the final jurisdiction, including the power to overturn both local authority objections and the Inquiry Reporter's recommendations. In the case of

military developments, he will take advice from his Cabinet colleague the Defence Secretary before making a final decision. The result, very often, is merely a confirmation of what the MoD originally asked for. The two most prominent recent cases in Scotland – the Castletaw Hill firing range inquiry in 1979, and the Stornoway air base inquiry in 1981 – illustrate this point. In both cases, although the Inquiry Reporter found against the development on planning grounds, they were approved by the Secretary of State on grounds of “over-riding national interest”.

Many of these criticisms apply equally to the planning process as it relates to civil developments. The arguments are well-rehearsed: vast public expense, limited remit, bias in favour of the developer because of failure to fund objectors, and the ability of government ministers simply to ignore the inquiry’s findings⁽⁴²⁾. But for military developments, the impregnability of the ‘national interest’ argument and the wholly discretionary provisions for ordering a public inquiry remain major obstacles for any objectors, and technical and operational secrecy prevents full discussion of the purposes or likely impacts of these projects.

Ultimately, of course, the entire planning consultation procedure established under SDD Circular 21/84 and its English and Welsh equivalents is discretionary when the government department concerned is the MoD. Paragraph 6 of the circular states that “none of these consultations or notifications can fully apply to proposals involving national security.”

In addition, any government department can circumvent much of the public review process by marking their Notice of Proposed Development (NOPD) ‘Special Urgency’. In this case, the requirement for the local authority to publicise the proposal does not apply, and any comments must be received by the developing department within 14 days of the planning authority’s receipt of the NOPD. If the planning authority makes no response within that time limit, the developer will assume that there are no objections or comments, and implement the project. The planning authority will be given at least 48 hours notice of construction starting. This procedure was used when the Admiralty Marine Technology Establishment built a new and highly classified underwater calibration range for submarines on the island of South Rona, between Skye and Applecross, in 1977⁽⁴³⁾.

In cases where the MoD regards it as desirable that no publicity be given to developments, SDD Circular 21/84 also allows the Ministry to advise planning authorities to omit certain particulars of projects from their register of planning applications or to exclude them from the documentation made available for public inspection⁽⁴⁴⁾.

Environmental Impact Assessment

The growth of environmentalism, and more particularly of its

mobilisation as a national and international political issue, is increasingly challenging the military’s environmental policies and openness to public scrutiny. Britain’s military, which continues to derive its constitutional legitimacy and status directly from the Crown rather than through legislative provisions, is unaccustomed to having to subject its programmes to detailed legal or public review. Other countries have rather different approaches to military-environmental policy, particularly in regard to the use of formal environmental impact assessments or reviews.

In this respect, the United States leads the field. Under the National Environmental Policy Act of 1969, all government projects must undergo an environmental impact analysis which is commissioned and funded by the project proponent. Once completed, the Environmental Impact Statement (EIS) forms the basis of public hearings. Objectors can receive substantial public funding which enables them to hire their own technical experts and take a full part in public hearings.⁽⁴⁵⁾

Canada has a system much like the United States. All Federal Government sponsored projects expected to have a significant environmental impact must undergo environmental review. Although limited environmental reviews of proposed US bomber training routes in Canada have been carried out, the first major test of the Canadian system against a military project has been taking place since 1987. This concerns proposals to expand existing NATO combat aircraft training facilities in Labrador, to accommodate a new training centre, weapons ranges and low flying areas. The Goose Bay project has shown the Canadian Department of National Defence to be extremely poorly equipped to deal with the requirements of an elaborate and sophisticated environmental review process. In spring 1990, at a time when all the signs were that the success of the opposition in using the review process to mobilise their arguments would result in NATO withdrawing its proposal and shifting the project to a site in Turkey instead, NATO announced abandonment of the project altogether because of a combination of budget stringency and the collapse of the military threat⁽⁴⁶⁾.

A requirement for EIS has also recently been introduced in the Netherlands for army training areas, naval and air bases, and the Dutch Council for Environment and Nature Research has been arguing for an extension of these studies to include assessments of impacts on arms control as well as the natural environment⁽⁴⁷⁾.

The trend towards adoption of some form of EIS for major government projects in European countries has been driven largely by EC legislation. EC Directive 85/337, adopted in 1985, provides that projects likely to have a significant impact on the environment must undergo an environmental impact assessment (EIA). These include petro-chemical works, power stations, motorways, airports etc. Notably, however, projects serving national defence purposes are exempt from the provisions of the Directive⁽⁴⁸⁾.

Despite much delay and political wrangling, the Directive was brought into effect in the UK in July 1988. In Scotland, they are set out in SDD Circular 13/88, which, in a significant shift in military-environmental policy, goes beyond the terms of the directive by stating that "the Ministry of Defence will, in appropriate circumstances and subject to considerations affecting national security, provide environmental statements in respect of major defence projects"⁽⁴⁹⁾.

The first environmental impact assessment of a military project in the UK was carried out in 1984 – dealing with the development of the Clyde Submarine Base for the Trident missile system. However it took place in a highly perverse situation: the local planning authority had refused to agree to the development; the Secretary of State had refused to institute a public planning inquiry; the Regional Council had then conducted its own independent non-statutory public inquiry; and the Navy only conducted its EIA six months after the completion of the Regional Council's inquiry report. Moreover, the Clyde Submarine Base EIA was prepared before EIAs became European law, and before any clear idea of UK standards and procedures had emerged. The very existence of the Navy's EIA was kept secret until 12 days before its release; it was conducted without any consultation with local authorities; and it was criticised for a number of omissions and deficiencies, particularly in relation to safety hazards⁽⁵⁰⁾.

Two further EIAs have been conducted by the Defence Ministry in England since then, but in early 1990 it was announced that an environmental impact assessment would accompany the NOPD for a trial Extremely Low Frequency submarine communications transmitter to be sited in Glen Garry⁽⁵¹⁾. Ironically, this project is now unlikely to go ahead for a variety of technical and strategic reasons; so Scottish planning authorities and the public will have to await some other military project before having the opportunity to judge how the MoD is interpreting the EC legislation and SDD Circular on environmental impact assessment, and whether these provisions are any improvement on the existing discretionary public inquiry procedure.

Conclusions

The evolution of military-environmental policy in Britain in the last ten years suggests that much of the motive for the introduction of more comprehensive reviews of military developments has been concerned with achieving better public relations rather than finding ways of avoiding or mitigating adverse environmental impacts. In a system where the environmental regulatory bureaucracy is relatively informal and powerless (in contrast to, for example the US Environmental Protection Agency), this is not surprising. But the military will come under increasing pressure not only from EC and national legislation, but from growing public concern about access to land, and public health hazards. An environmental policy founded mainly on the military's ability to define the boundaries of environmental assessment

itself, and limit discussion on key aspects of its activities, cannot last long.

Interestingly, the Soviet Union appears to be using increased public environmental concerns about military activity to its own public relations advantage. In at least two cases in Poland and Czechoslovakia, Soviet fighter squadrons have been withdrawn to the USSR, ostensibly after protests about noise or safety fears. In the spring of 1990, TASS announced that construction of a new radar station in the Ukraine was being abandoned because of local fears of public health dangers from electromagnetic radiation⁽⁵²⁾. The chances are high that these units were scheduled for withdrawal in any case under the cutbacks announced by Gorbachev in December 1988, or as a result of financial restrictions, but the linkage to environmental concerns offered the Soviet military the prospect of a public relations coup.

Continued progress in arms control and the demonstrable reductions in the Warsaw Pact military threat will place new demands on the military to participate in more formal environmental reviews. Further, since war is less likely now than at any time since 1945, the armed forces may have to accept that the price of peace is willingness to reduce the high levels of combat readiness and intensity of training that are the source of much of the military's adverse impact on the human and natural environment. In other words, defence posture will come to be shaped more and more by factors other than the scale and nature of the threat. When that happens, it will represent one of the most significant shifts in the balance between the state and civil society in the history of the United Kingdom.

But while the decline of the threat may lead to reductions in the scale of the military's impacts on the environment, it will not lead to their elimination. Nor will it be sufficient simply to alter the military's public relations policies in order to cope with increased environmental awareness. Military training activity and the construction and operation of military facilities are likely to be integrated further into the civil environmental planning process, including formal public review of proposals and elimination of discrepancies between civil and military environmental regulations.

The MoD has yet to be tested on its ability to carry through a project which is subjected to an environmental impact assessment and a public inquiry, in addition to the normal planning notification procedures; but having faced the challenge of adopting EC environmental legislation when it was under no legal obligation to do so, the Ministry is likely to have to accept that such detailed public scrutiny, in an era of rapidly reducing military threats, will result in projects being scaled back or even rejected.

In Scotland, where the most significant military-environmental policy issues are the use of privately-owned land for training, and the noise from low flying aircraft, legislative developments are perhaps less relevant. This may allow the MoD to suffer less scaling back north of the Border. The relative

immunity, so far, of naval forces from any arms control talks, may also lead to the military presence remaining at much the same level for the foreseeable future. But whatever Scotland's defence role, it is clear that in future public concern about the environmental impact of military activity will become a significant determinant of how and where the armed forces train.

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